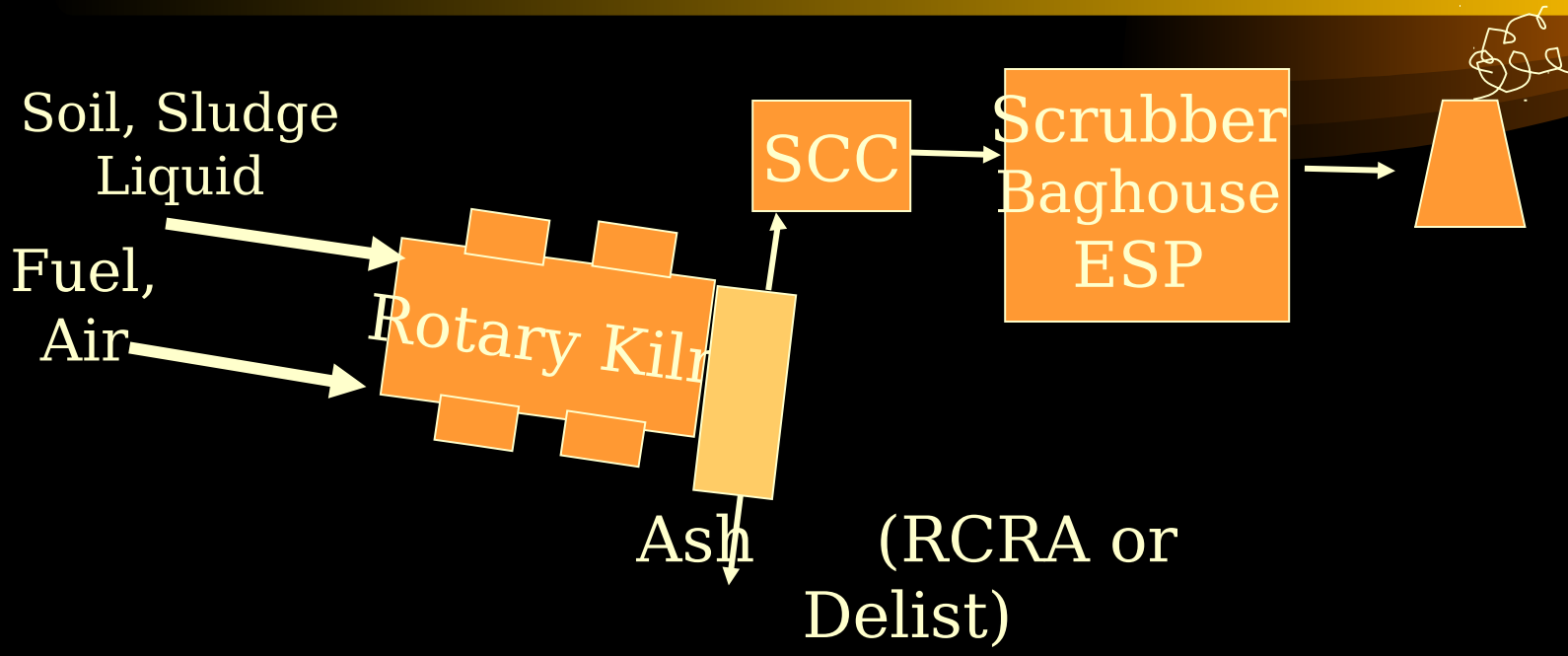
On Site & Off Site Remediation of Contaminated Waste

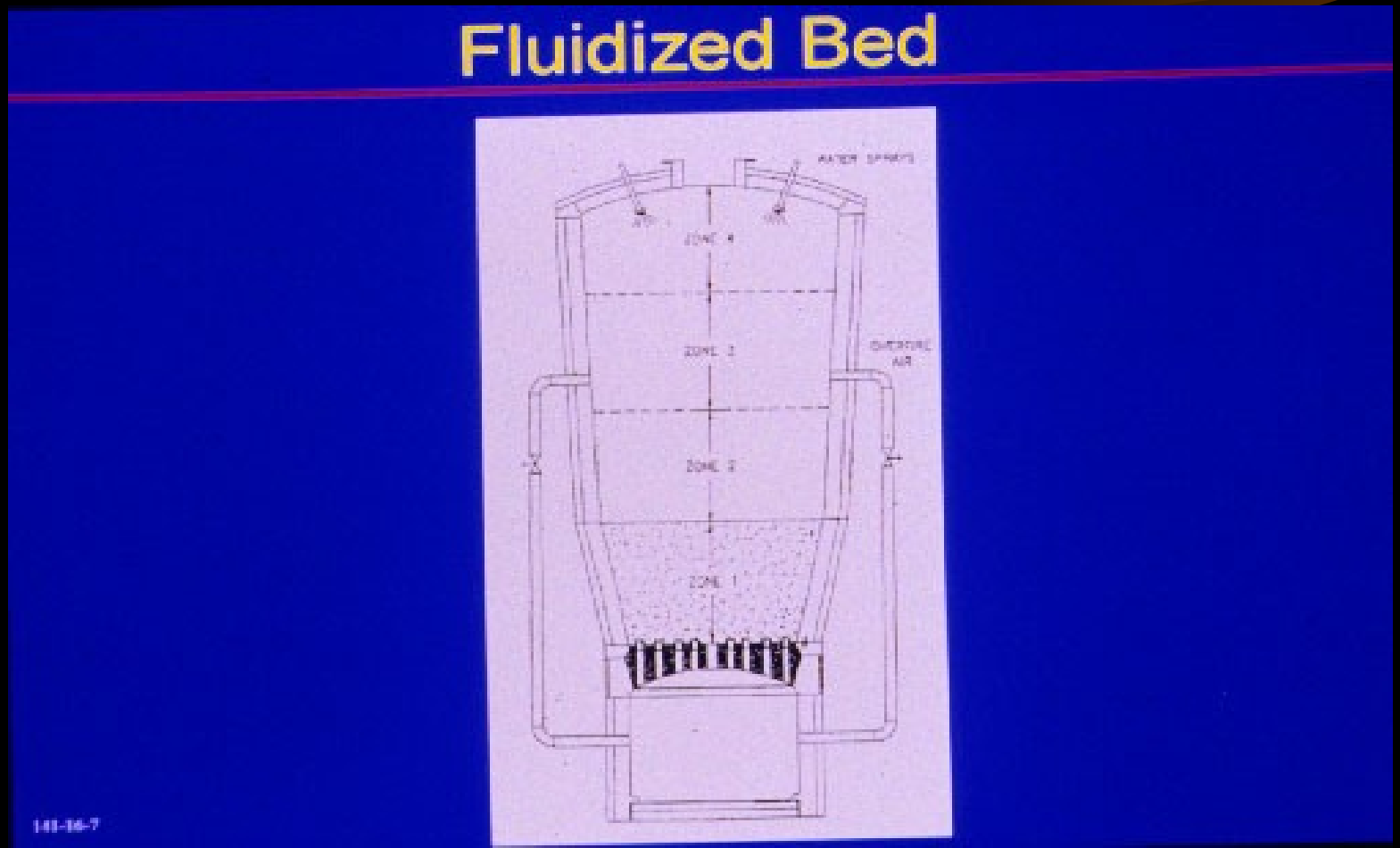
- Proven process for remediation of contaminated waste
- On site with a transportable unit or off site to a permanent commercial incinerator
- Comparison from a technical and economic point of view
- 40 CFR Parts 63, 261, 264, 270; 19 JUN 98
- 40 CFR Part 60; 2 MAY 97

Off Site, Fixed Incinerator Rotary Kiln



- Bulk Solid Waste: $500/Ton
- Bulk Liquids: $0.94-$22/Gallon

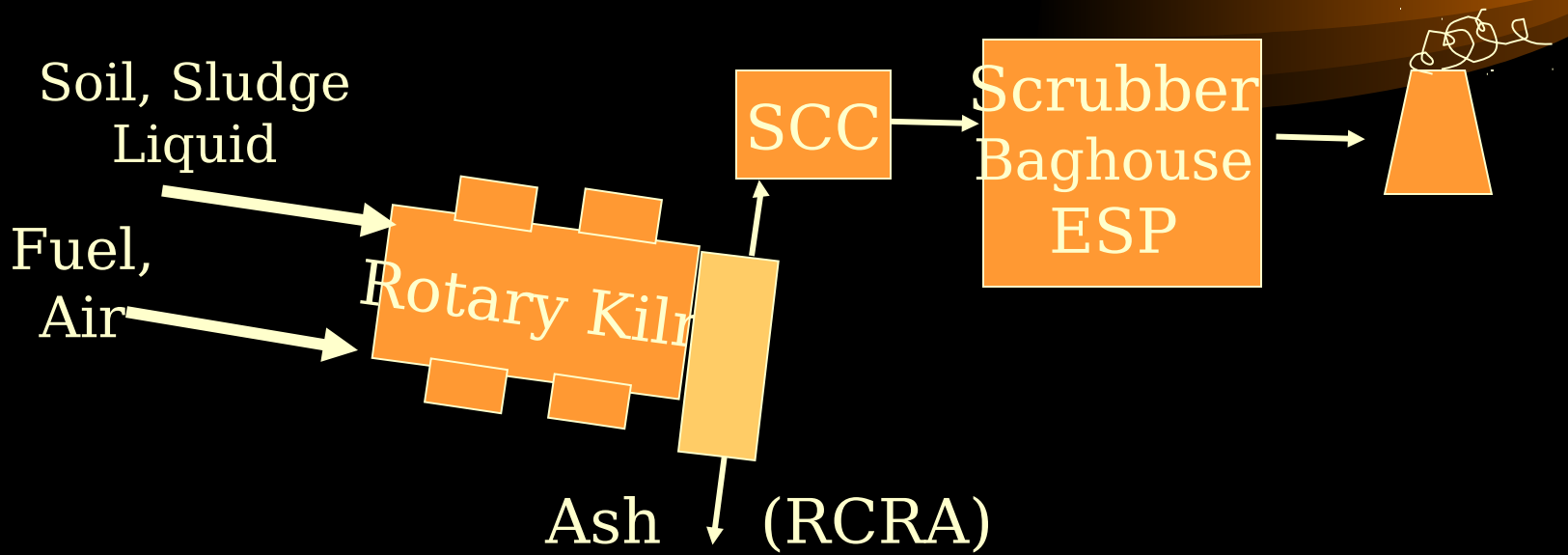
Off Site, Fixed Incinerator Fluidized Bed



Off Site, Fixed Incinerator Rotary Kiln

- Analytical Tests-Compliance with established profiles, screens for non-incinerables (radioactivity & metals)
- Soil Prep-Reduction in particle size
- Transportation-
  - Adherence to USEPA and DOT regulations; 49 CFR Parts 171-178
  - Trip cost, distance traveled, volume transported

On Site, Transportable Incinerator-Rotary Kiln



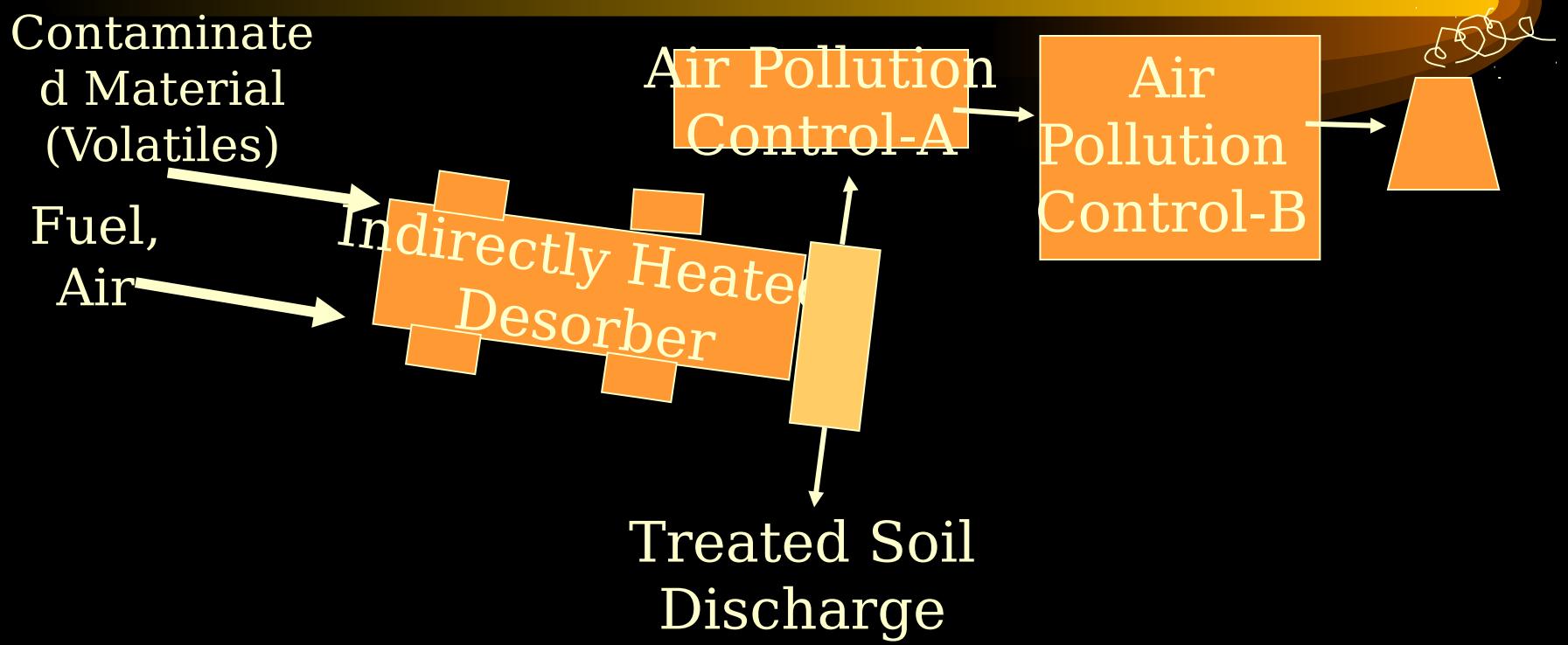
- Mead: $650/Ton (Explosives)
- Savannah Army Depot:$275/Ton (Solvents)

On Site, Transportable Incinerator-Rotary Kiln; Drake

On Site, Transportable Incinerator-Rotary Kiln

- Analytical Tests-Trial burn, initial fieldscreens, excavation boundaries, confirmation sampling
- Time Schedule-Mobing through demobing approximately one year
- Transportation-No DOT restrictions since soils are not removed from site

Transportable Thermal Desorbers



- Southern Maryland Wood: $220/Ton

Transportable Thermal Desorbers; Iowa AAP

Transportable Thermal Desorbers

- Analytical Tests-Proof of Performance Test, initial fieldscreens, excavation boundaries, confirmation to fulfill backfill requirements
- Soil Prep- Particle size reduction (< 2” ⌀)
- Transportation-No DOT restrictions since soils are not removed from site

Summary

	On Site	Off Site
Large Quantity	+	-
Small Quantity	-	+
Institutional	-	+
Permitting	-	+
Cost	?	?

(See Cost Report Mar 98)